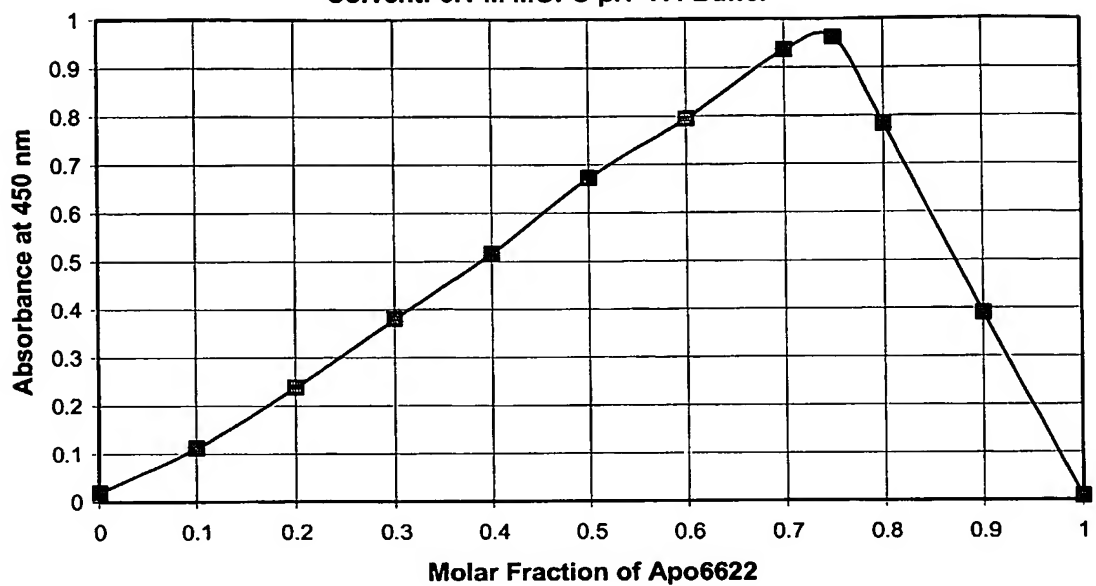


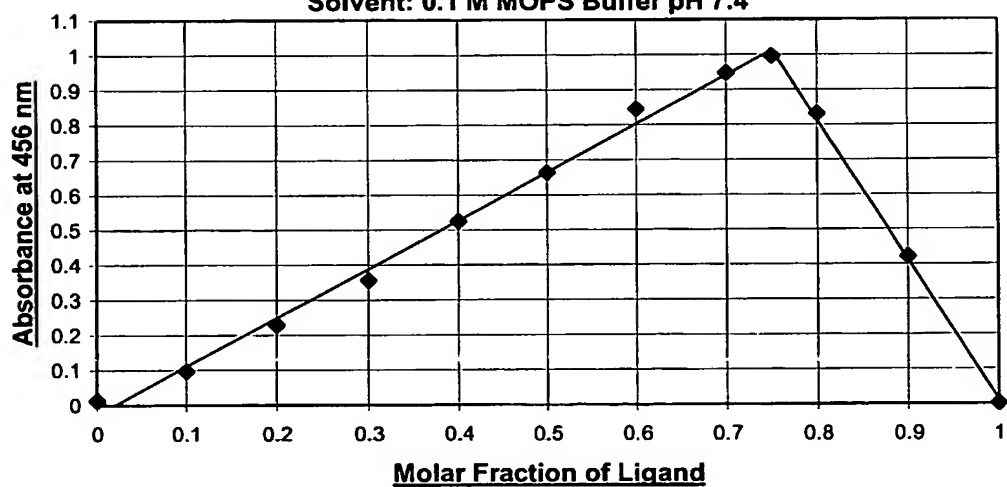
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Figure 1: Job's Plot for Apo6622  
 $[\text{Fe}^{3+}]_{\text{total}} + [\text{Apo6622}]_{\text{total}} = \text{Constant} = 8 \times 10^{-4} \text{ M}$   
Solvent: 0.1 M MOPS pH=7.4 Buffer



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Figure 2: Job's Plot for Apo6617  
 $[\text{Fe}^{3+}]_{\text{total}} + [\text{Apo6617}]_{\text{total}} = 8 \times 10^{-4} \text{ M}$   
Solvent: 0.1 M MOPS Buffer pH 7.4



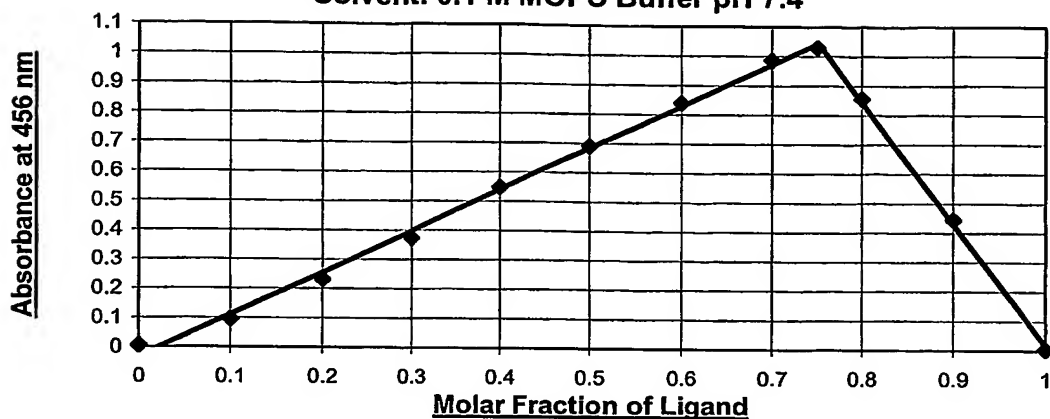
10

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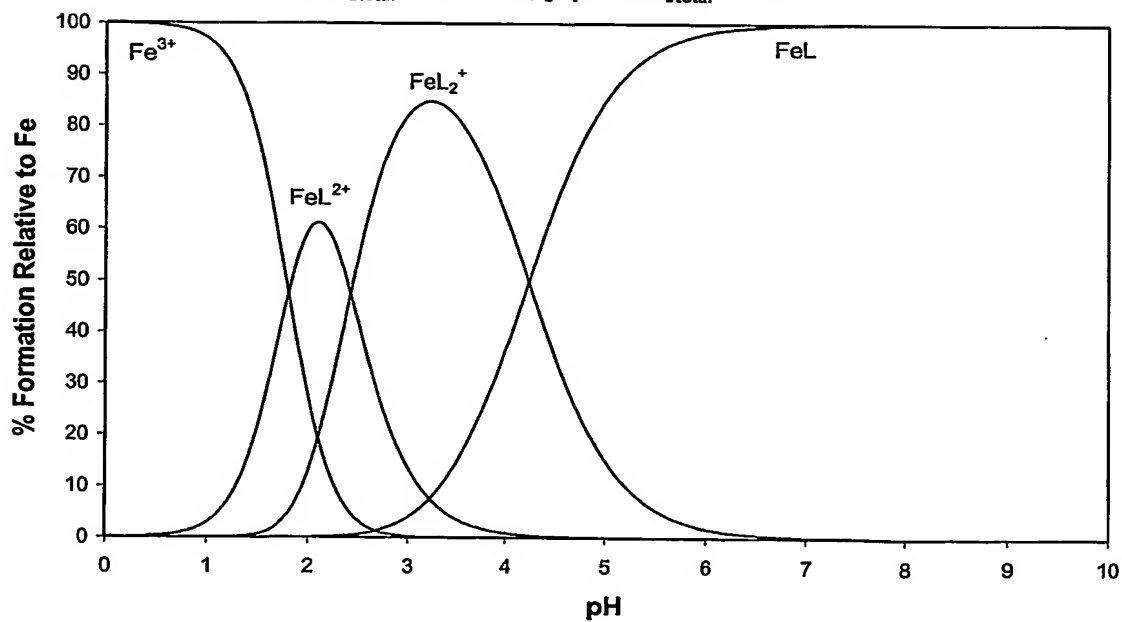
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**Figure 3: Job's Plot for Apo6619**

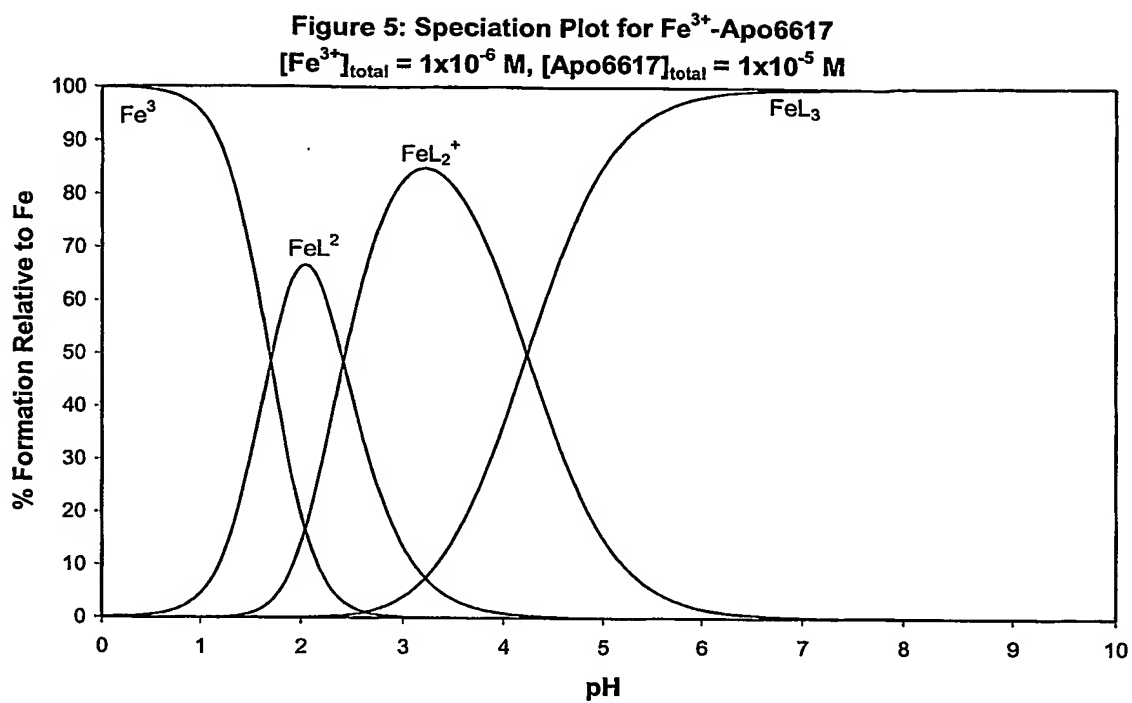
$$[\text{Fe}^{3+}]_{\text{total}} + [\text{Apo6619}]_{\text{total}} = 8 \times 10^{-4}$$

**Solvent: 0.1 M MOPS Buffer pH 7.4****Figure 4: Speciation Plot for Fe<sup>3+</sup>-Apo6619**

$$[\text{Fe}^{3+}]_{\text{total}} = 1 \times 10^{-6} \text{ M}, [\text{Apo6619}]_{\text{total}} = 1 \times 10^{-5} \text{ M}$$



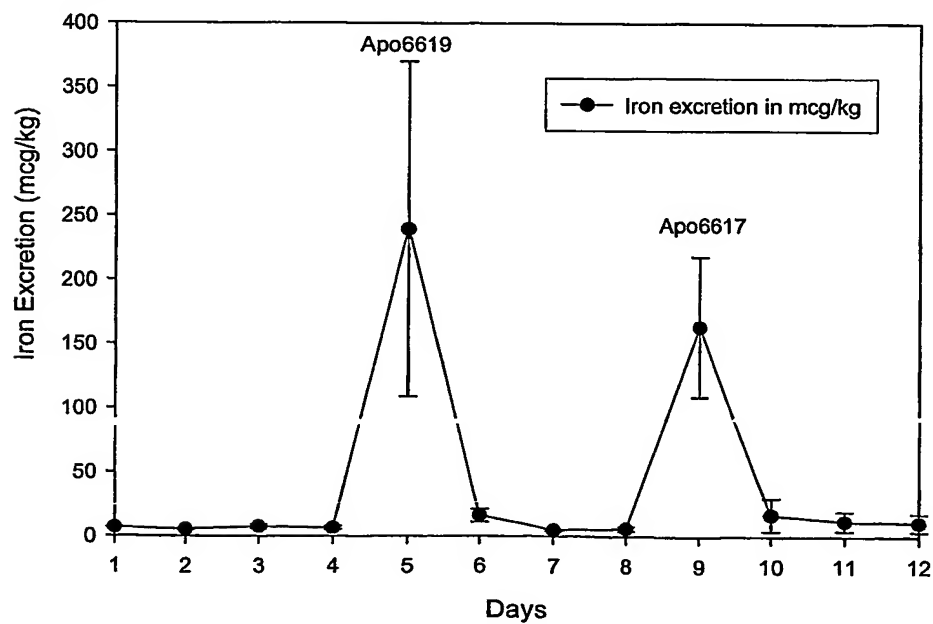
3/6



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**Figure 6**

Effectiveness of Apo6619 and Apo6617 in Promoting Urinary Iron Excretion



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**5 Figure 7**

The crystal structure of Fe(Apo6617)<sub>3</sub>.

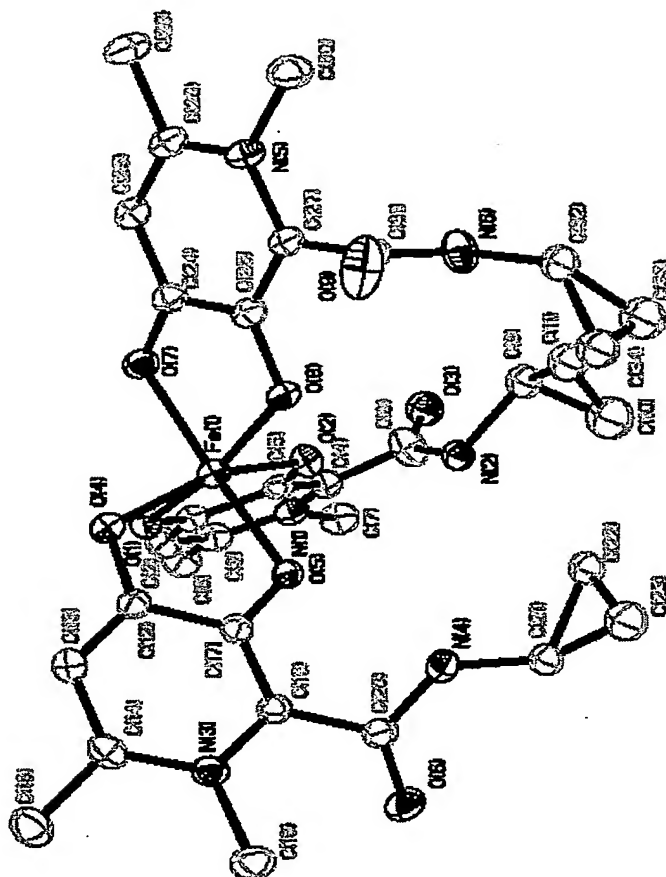
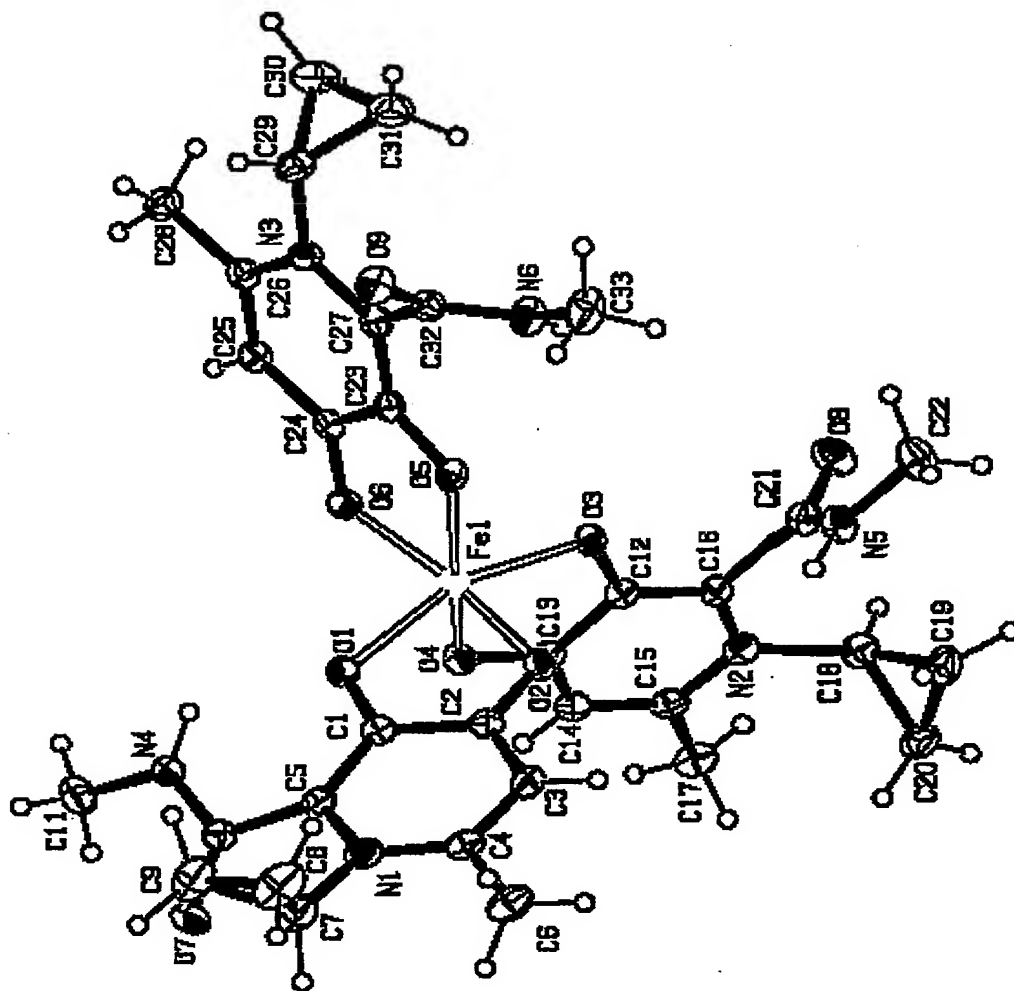
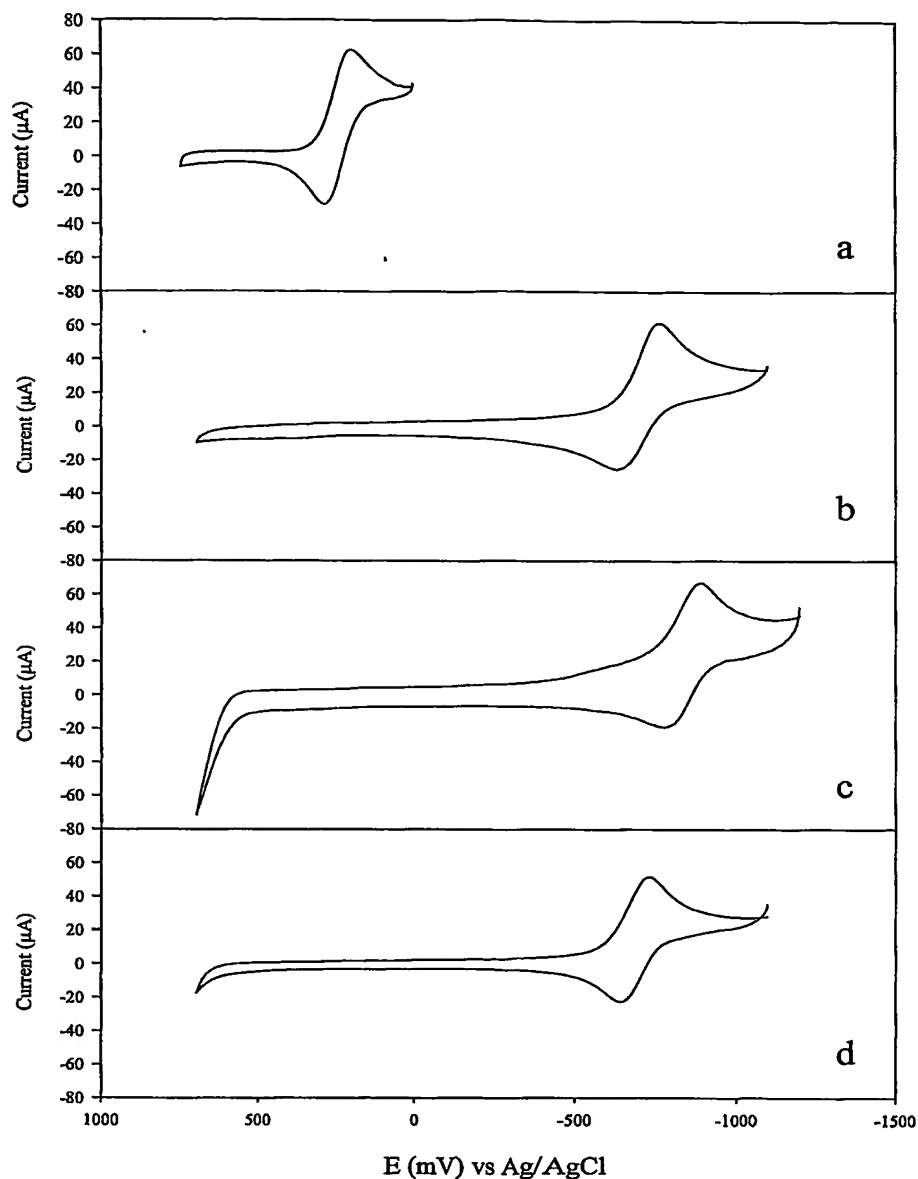


FIG. 8 Single Crystal Structure of Fe(Apo6619)<sub>3</sub> chelate

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**FIG. 9** Cyclic voltammogram of a.  $\text{K}_3\text{Fe}(\text{CN})_6$ ; b.  $\text{Fe}(\text{DFO})$ ; c.  $\text{Fe}(\text{deferiprone})$ ; d.  $\text{Fe}(\text{Apo6619})_3$  at pH 7.4.  $\text{K}_3\text{Fe}(\text{CN})_6$  is used as a standard to validate the results.

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